CONTENTS

No. 1 JANUARY, 1937

Editorial Review. Carl von Voit. *Frontispiece* 1

W. A. Selle. With technical assistance of I. W. Moody. The effect of enteric-coated pancreatin on fat and protein digestion of depancreatized dogs 15

J. M. Brazell, C. R. Schmidt and A. C. Ivy. On the effectiveness of orally administered diastase in achylia pancreatica (dog) 29

H. Freeman, F. E. Linder and R. F. Nickerson. The bilateral symmetry of skin temperature. One figure 39

Jean E. Hawks, Marie Dye and Merle M. Bray. An improved technic for metabolism studies in pre-school children with a statistical determination of its reliability. One figure 51

Ruth M. Leverton and Lydia J. Roberts. The iron metabolism of normal young women during consecutive menstrual cycles. Three figures 65

Orme J. Kahlenberg, Alex Black and E. B. Forbes. The utilization of energy producing nutriment and protein as affected by sodium deficiency. One figure 97

M. Elizabeth Marsh. The utilization of hexoses by excised rat tissues. One figure 109

No. 2 FEBRUARY, 1937

A. R. Patton. A comparison of the glycine contents of the proteins of normal and chondro-dystrophic chick embryos at different stages of development 123

Genevieve Stearns and Dorothy Stinger. Iron retention in infancy. Four figures 127

Genevieve Stearns and John B. McKinley. The conservation of blood iron during the period of physiological hemoglobin destruction in early infancy. One figure 143

GEORGE BACHMANN AND JOHN HALDI. With the technical assistance of W. Wynn and C. Ensor. A comparative study of the respiratory quotient following the ingestion of glucose and of fructose as affected by the lactic acid and carbon dioxide changes in the blood. Two figures 157

JEAN E. HAWKS, MERLE M. BRAY AND MARIE DYE. Effect of diet on the constancy of the urinary nitrogenous constituents excreted daily by pre-school children. One figure. 179

L. H. NEWBURGH, MARGARET W. JOHNSTON, F. H. WILEY, J. M. SHELDON AND W. A. MURRILL. A respiration chamber for use with human subjects. Three figures 193

L. H. NEWBURGH, M. W. JOHNSTON, F. H. LASHMET AND J. M. SHELDON. Further experiences with the measurement of heat production from insensible loss of weight 203

ROE E. REMINGTON. Improved growth in rats on iodine deficient diets 223

No. 3 MARCH, 1937

MARY DORIS CARPENTER AND GEORGE R. SHARPLESS. A study of the effect of vitamin B and iodine on the weight, iodine content and structure of the thyroid gland of the rat. Four figures 235

WARREN M. COX, JR. AND ARTHUR J. MUELLER. The composition of milk from stock rats and an apparatus for milking small laboratory animals. Two text figures and one plate (one figure) 249

FRANCES COPE HUMMEL, HELEN A. HUNSCHER, MARY F. BATES, PRISCILLA BONNER, ICIE G. MACY AND JOSEPH A. JOHNSTON. A consideration of the nutritive state in the metabolism of women during pregnancy. Three figures 263

O. M. HELMER. The determination of vitamins B and G in human urine by the rat-growth method. One figure 279

P. S. LARSON AND I. L. CHAIKOFF. The influence of carbohydrate on nitrogen metabolism in the normal nutritional state 287

N. B. GUERRANT, R. ADAMS DUTCHER AND RAYMOND A. BROWN. Further studies concerning the formation of the B-vitamins in the digestive tract of the rat 305

ERNST GELLHORN AND JOAN O. DUNN. The influence of lack of vitamin A in the diet on the phagocytosis promoting properties of the blood serum. One figure 317

SUE POTTER VILTER AND RUTH JOHNSTIN. Photometric determinations of urea, uric acid, creatinine and hemoglobin in the blood of scorbutic guinea pigs. One figure 329

No. 4 APRIL, 1937

H. J. Almquist and E. L. R. Stokstad. The gizzard factor of the chick. One figure 339

Arild E. Hansen and William R. Brown. The effect of low fat diets on serum lipids of rats 351

Thomas H. Jukes. Review. Recent studies of vitamins required by chicks 359

Paul L. Day, William J. Darby and William C. Langston. The identity of flavin with the cataract-preventive factor. Three figures 389

Daniel Melnick and George R. Cowgill. The protein minima for nitrogen equilibrium with different proteins. Four figures 401

Earl R. Norris, Mary K. Simeon and Hal B. Williams. The vitamin B and vitamin C content of marine algae 425

Charles E. Bills, O. N. Massengale, Miriam Imboden and Helen Hall. The multiple nature of the vitamin D of fish oils 435

No. 5 MAY, 1937

Eunice Kelly and Helen T. Parsons. Some quantitative studies on refection in the rat. Two figures 453

E. Neige Todhunter. A comparison of heated casein with extracted casein in the basal diet for the determination of vitamin A 469

W. D. Salmon and J. G. Goodman. Alleviation of vitamin B deficiency in the rat by certain natural fats and synthetic esters. Two figures 477

Helen S. Mitchell, Oreana A. Merriam and Gladys M. Cook. The relation of ingested carbohydrate to the type and amount of blood and urine sugar and to the incidence of cataract in rats 501

Barnett Sure and Kathryn S. Buchanan. Antithyrogenic action of crystalline vitamin B 513

Barnett Sure and Kathryn S. Buchanan. Influence of hyperthyroidism on vitamin A reserves of the albino rat 521

Harold Levine and Roe E. Remington. The vitamin G content of some foods 525

H. R. Guilbert, R. F. Miller and E. H. Hughes. The minimum vitamin A and carotene requirement of cattle, sheep and swine 543

No. 6 JUNE, 1937

DR. M. J. GREENMAN ..... *Frontispiece*

JOHN R. MURLIN. *Editorial.* Milton Jay Greenman 567

MARGARET CAMMACK SMITH AND LOUISE OTIS. Hemoglobin regeneration in anemic rats in relation to iron intake. With suggestions for improvement of the bioassay technic for measuring available iron. One figure 573

THORNE M. CARPENTER. The effect of galactose on the human respiratory quotient and alveolar carbon dioxide. Five figures 583

ARTHUR H. SMITH AND JAMES M. ORTEN. Editorial Review. The nutritional and metabolic significance of certain organic acids 601

JOSEPH C. AUB, DOROTHY M. TIBBETTS AND REGINA MCLEAN. The influence of parathyroid hormone, urea, sodium chloride, fat and of intestinal activity upon calcium balance 635

NELLIE HALLIDAY AND HERBERT M. EVANS. Dietary production of the syndrome of deficiency in vitamin B_1. One figure 657

C. M. JACKSON. The food intake of young rats held at nearly constant body weight by restriction of the dietary protein. One figure 669

GUSTAV J. MARTIN. Vitamin E 679

CAREY D. MILLER. Adsorption of vitamin B by plant tissue (by Solanum melongena Linn. and Raphanus sativus var. Longipinnatus Bailey) when pickled with salt and rice bran. One figure 687

AMERICAN INSTITUTE OF NUTRITION. Proceedings of the fourth annual meeting. Minutes of meeting, by-laws, abstracts and list of members.. Sup. 1

CARL VON VOIT